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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,888	05/22/2001	Anthony William Jorgenson	5957-41000	9420

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MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398

EXAMINER

JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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06/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/863,888

Applicant(s)

JORGENSEN ET AL.

Examiner

Nittaya Juntima

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9-12,22-24,54,56 and 71-87 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,9-12,22-24,54,56 and 71-87 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed on 3/12/2007.
2. Claims 2-8, 13-21, 25-53, 55, and 57-70 were cancelled.
3. Claims 1, 9-10, 12, 22-23, 54, 71-74, 78-82, and 85-86 are currently rejected under 35 U.S.C. 102(e).
4. Claims 9-11, 23-24, 54, 56, 83-84, and 86-87 are currently rejected under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 9-10, 12, 22-23, 54, and 85-86 are rejected under 35 U.S.C. 102(e) as being anticipated by an art of record, Rowan (US 6,529,303 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

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Regarding claims 12 and 1, as shown in Fig. 5B, Rowan teaches an apparatus (a converter 275) for providing data transport through a data network, comprising:

A clock recovery unit (CDR 512) configured to receive an encoded data (data encoded on STS-12) wherein said clock recovery unit is further configured to detect a data rate of said received encoded data (CDR must detect data rate of STS-12 signal in order to recover a clock signal of the STS-12 signal, col. 13, lines 1-5).

A data translation unit (a means in the CDR 512 that converts the incoming bit stream into a byte stream) coupled to said clock recovery unit, configured to translate said received data to a predetermined data (col. 13, lines 1-7).

An inverse multiplexer (demultiplexer 514) coupled to said data translation unit, configured to inverse multiplex said translated predetermined data, wherein said multiplexed mapped predetermined data includes a plurality of STS signals (4 STS-3 signals). See col. 13, lines 8-13.

Wherein said clock recovery unit (CDR 512) is further configured to recover a clock signal from said received encoded data (col. 13, lines 1-5).

Regarding claim 9, since TDM technique is used, it is inherent that said inverse multiplexing must synchronize said inverse multiplexed predetermined data (four separate byte-wide signals). See col. 13, lines 8-13.

Regarding claim 10, since TDM technique is used, it is inherent that said inverse multiplexed predetermined data must be synchronized to a predetermined clock signal (col. 13, lines 8-13).

Regarding claim 22, Rowan teaches a modem (parallel to serial converter 516, Fig. 5B) coupled to said inverse multiplexer configured to receive said inverse multiplexed translated predetermined data (four separate byte-wide signals) for transmission (col. 13, lines 13-18).

Regarding claim 23, Rowan also teaches that said STS signals comprise STS-3 signals (col. 13, lines 8-13).

Claim 54 contains similar limitations recited in claim 23, and is therefore rejected under the same reason set forth in the rejection of claim 23.

Claims 85 and 86 contain similar limitations recited in claims 22 and 23, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 22 and 23, respectively.

7. Claims 1, 9-10, 12, 22, and 85 are rejected under 35 U.S.C. 102(e) as being anticipated by Roberts (US 7,002,986 B1).

Regarding claims 12 and 1, as shown in Fig. 2 and 3, Roberts teaches an apparatus (synchronizer 20, Fig. 2 and desynchronizer 40, Fig. 3, collectively) for providing data transport through a data network, comprising:

A clock recovery unit (data recovery unit 36, Fig. 2) configured to receive an encoded data (data must be encoded over signal S1, Fig. 2) wherein said clock recovery unit is further configured to detect a data rate (R1) of said received encoded data (col. 9, lines 59-64 and col. 10, lines 48-52).

A data translation unit (mapping unit 30, FIFO 31, SONET overhead multiplexer 33 in Fig. 2, collectively) coupled to said clock recovery unit, configured to translate said received data to a predetermined data (col. 11, lines 54-col. 12, lines 36)

An inverse multiplexer (DeMux 53, Fig. 3) coupled to said data translation unit, configured to inverse multiplex said translated predetermined data, wherein said multiplexed mapped predetermined data includes a plurality of STS signals (signal S input into DeMux 53 is a STS, therefore, it must contain a plurality of STS signals). See col. 12, lines 49-56.

Wherein said clock recovery unit (data recovery unit 36, Fig. 2) is further configured to recover a clock signal from said received encoded data (col. 10, lines 51-52).

Regarding claim 9, Roberts further teaches that said inverse multiplexing includes synchronize said inverse multiplexed predetermined data (DeMux 53 delineates the SONET overhead from signal 42' using STS-192 clock 28). See col. 12, lines 49-51 and Fig. 3.

Regarding claim 10, Roberts further teaches said inverse multiplexed predetermined data is synchronized to a predetermined clock signal (STS-192 clock 28, Fig. 3) (col. 12, lines 49-51).

Regarding claim 22, Roberts teaches a modem (modulation function not claimed, reads on a transmitter overhead FIFO 51, Fig. 3) coupled to said inverse multiplexer (DeMux 53, Fig. 3) configured to receive said inverse multiplexed translated predetermined data (signal 42') for transmission (col. 12, lines 52-56).

Claim 85 contains similar limitations recited in claim 22, and is therefore rejected under the same reason set forth in the rejection of claim 22.

8. Claims 1, 12, 22, 71-74, 78-82, and 85 are rejected under 35 U.S.C. 102(e) as being anticipated by an art of record Ouellet (US 6,854,031 B1).

Regarding claims 78 and 71, Ouellet teaches an apparatus (22-E in Fig. 2) for providing data transport through a data network, comprising:

A clock recovery unit (SerDes 34-E in Fig. 3) configured to receive an encoded data including 8B/10B encoded data (col. 5, lines 52-56 and col. 6, lines 27-29, 25-27, 44-52) and to detect a data rate of said recovered encoded data (data rate must be detected since different data rates of OC-48 and OC-12 can be used, col. 11, lines 9-10 and 24-25).

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A data translation unit (decoder 82, Fig. 10 decodes the 10-bit data into 8-bit data) coupled to said clock recovery unit, configured to translate said received data to a predetermined data (col. 11, lines 8-10).

An inverse multiplexer (DEMUX 84 in Fig. 10) coupled to said data translation unit, configured to inverse multiplex said translated predetermined data (col. 11, lines 12-16).

Since Oullet teaches that the incoming line rates into a demux 84, Fig. 10 can be OC-48 (col. 11, lines 9-10 and 24-25) which contains STS-48, it is inherent that said inverse multiplexed translated predetermined data (demultiplexed OC-48) must include a plurality of STS signals.

Regarding claims 72 and 79, Oullet teaches that the encoded data includes a Fiber channel data (OC-48, col. 6, lines 17-25 and col. 11, lines 9-10).

Regarding claims 73 and 80, Oullet teaches that said clock recovery unit (SerDes 34-E in Fig. 3) configured to recover a clock signal from said received encoded data (col. 5, lines 52-56).

Regarding claims 74 and 81, Oullet teaches that said clock signal (125 MHz) has a rate one tenth of said data rate (1.25Gb/s) (col. 5, lines 52-56, col. 10, lines 60-64, and Fig. 10).

Regarding claim 82, Oullet teaches a modem coupled to said inverse multiplexer configured to receive said inverse multiplexed translated predetermined data for transmission (modulation function is not claimed, therefore, a modem reads on the Rx FIFO 88 that receives the signal from DEMUX 84 for further transmission, col. 11, lines 17-20).

Claim 1 contains similar limitations recited in claim 71, and is therefore rejected under the same reason set forth in the rejection of claim 71.

Claim 85 contains similar limitations recited in claim 82 and is therefore rejected under the same reason set forth in the rejection of claim 82.

Claim 12 contains similar limitations recited in claim 80, and is therefore rejected under the same reason set forth in the rejection of claim 80.

Claim 22 contains similar limitations recited in claim 82, and is therefore rejected under the same reason set forth in the rejection of claim 82.

9. Claims 9-11 and 75-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellet (US 6,854,031 B1) in view of Moshe (US 6,914,941 B1).

Regarding claims 75-77, Ouellet does not teach the step of synchronizing said inverse multiplexed predetermined data to a predetermined clock signal including a phase locked loop clock signal.

However, as shown in Fig. 3, Moshe teaches an analogous art where an inverse multiplexing (102) includes synchronizing an inverse multiplexed predetermined data to a predetermined clock signal which includes a phase locked loop clock signal (112), col. 6, lines 5-13 and 27-32.

Given the teaching of Moshe, it would have been obvious to one skilled in the art at the time of the invention to further modify the teaching of Ouellet to include the step of synchronizing said inverse multiplexed predetermined data to a predetermined clock signal including a phase locked loop clock signal. The suggestion/motivation to do so would have been to keep the data rate, i.e. data rate going into the DEMUX 84 in Fig. 10 of Ouellet, constant as suggested by Moshe (col. 6, lines 8-11).

Claims 9-11 contain similar limitations recited in claims 75-77, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 75-77, respectively.

10. Claims 23-24 and 86-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 7,002,986 B1).

Regarding claims 23 and 24, Roberts does not teach that said STS signals comprise eight STS-3 signals for transmission.

However, an official notice is taken that it is well known in the art that STS-192 can contain 64 STS-3 signals. Therefore, it would have been obvious to one skilled in the art at the time of the invention to further modify the teaching of Roberts such that said STS signals would comprise eight STS-3 signals for transmission as claimed. The suggestion/motivation to do so would have been to utilize the bandwidth of the STS-3 signals for further data transmission as required.

Claims 86-87 contain similar limitations recited in claims 23-24, respectively, and is therefore rejected under the same reason set forth in the rejection of claims 23-24, respectively.

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11. Claims 23-24, 54, 56, 83-84, and 86-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellet (US 6,854,031 B1).

Regarding claims 83 and 84, Ouellet does not teach that said STS signals comprise eight STS-3 signals for transmission.

However, an official notice is taken that it is well known in the art that OC-48 may contain STS-48 electrical signal, 16 STS-3 electrical signals, or 48 STS-1 signals. Therefore, since Ouellet teaches that the incoming line rates into a demux 84, Fig. 10 is an OC-48 (col. 11, lines 9-10 and 24-25), it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of Ouellet such that OC-48 would include eight STS-3 signals as claimed. The suggestion/motivation to do so would have been to utilize the bandwidth of the the STS-3 electrical signals contained on the received OC-48 for further data transmission as required.

Claims 23-24 and 86-87 contain similar limitations recited in claims 83-84, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 83-84, respectively.

Claims 54 and 56 contain similar limitations recited in claims 83-84, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 83-84, respectively.

Conclusion

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12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

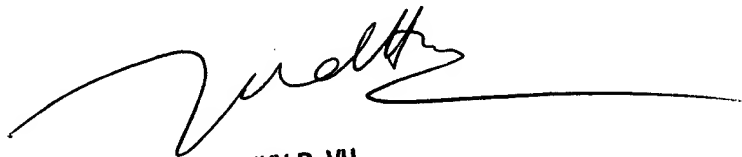
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Nittaya Juntima
May 25, 2007

NJ



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600